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(71) Applicant and

(72) Inventor: KLAUDER, Louis, T., Jr. [US/US]; 833 Galer Drive, Newtown Square, PA 19703 (US).

(74) Agent: COHEN, Gary, M.; Strafford Building Number Three, 125 Strafford Avenue, Suite 300, Wayne, PA 19087-3318 (US).

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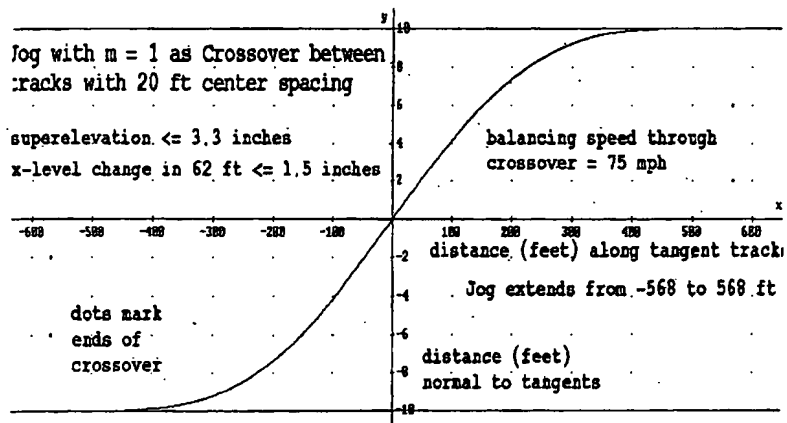
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(54) Title: USE OF K_SPIRAL, BEND, JOG, AND WIGGLE SHAPES IN DESIGN OF RAILROAD TRACK TURNOUTS AND CROSSOVERS



(57) Abstract: Railroad track transition curves having shapes referred to as K_spirals, Bends, Jogs, and Wiggles are suitable for use in various situations where railroad track transition curves are needed and have good dynamic characteristics. Such shapes can be used for design of railroad track turnouts and crossovers. In order for such shapes to be incorporated into turnouts and crossovers, rail switch arrangements are provided that can accommodate the superelevation profiles on which the favorable dynamic characteristics of those shapes depend. Such shapes can be used for turnout and crossover design in conjunction with two mechanical switch arrangements that are themselves well known, namely the transfer table and stub switch arrangements, and with two switch arrangements that are variants of the commonly used movable point arrangement, namely an arrangement in which the through point rail is wide over its whole length and an arrangement using a through point rail of relatively conventional taper and width but one that is bowed downward between its point and the frog.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E 01 B 5/00

US CL : 238/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 238/15, 16122, 124

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,905,568 A (Watanabe et al) 16 September 1975 (16.09.1975), whole document.	1-11
A	US 5,988,519 A (Jordie) 23 November 1999 (23.11.1999), whole document.	1-11
A	US 6,257,494 B1 (Tokuoka et al) 10 July 2001 (10.07.2001), whole document.	1-11

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See patent family annex.

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Commissioner for Patents
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Facsimile No. (703)305-3230

Authorized officer

S. Joseph Morano

Telephone No. (703) 308-1113